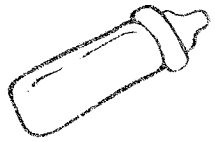
A Quick Switch

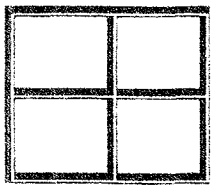
In the maternity ward, Mrs. Bright and Mrs. Light shared a room. When they were ready to go home, Mrs. Bright insisted that she had been given the wrong baby! The babies looked very much alike, and unfortunately, no one could find the record of the babies' footprints. Hospital officials told Mrs. Bright she was mistaken and sent her and the baby home. Mrs. Bright eventually asked the hospital to perform blood tests which showed the following data:

Mrs. Bright	Group AB	Mrs. Light	Group A
Mr. Bright	Group O	Mr. Light	Group A
Baby at Bright's home	Group O	Baby at Light's Home	Group A

1. What is Mrs. Bright's phenotype? _____
   What possible genotypes can she have? _____
2. What is Mr. Bright's phenotype? _____
   What possible genotypes can he have? _____

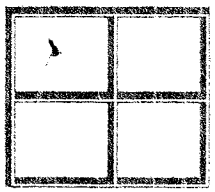


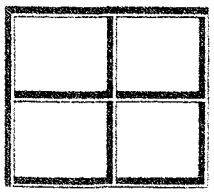
Using the Punnett square, show the possible genotypes of a child born to the Brights

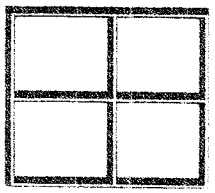


3. What is Mrs. Light's phenotype? _____
   What possible genotypes can she have? _____
4. What is Mr. Light's phenotype? _____
   What possible genotypes can he have? _____

Using the Punnett squares, show possible blood genotypes of a child born to the Lights







5. Was there a mix up at the hospital? Explain.

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6. List the combinations of phenotypes in the parents that would result in a child with Group A blood. (Example: AA X AA) _____

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